



SEQUENCE LISTING

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(1) GENERAL INFORMATION:

- (i) APPLICANT: Jakobsen, Brent Karsten
Gao, George Fu
Gerth, Ulrich Conrad
Sewell, Andrew Kelvin
- (ii) TITLE OF INVENTION: CD8 AS AN INHIBITOR OF THE CELLULAR
IMMUNE SYSTEM
- (iii) NUMBER OF SEQUENCES: 26
- (iv) CORRESPONDENCE ADDRESS:
(A) ADDRESSEE: Hale and Dorr LLP
(B) STREET: 60 State Street
(C) CITY: Boston
(D) STATE: Massachusetts
(E) COUNTRY: United States
(F) ZIP: 02109
- (v) COMPUTER READABLE FORM:
(A) MEDIUM TYPE: Floppy disk
(B) COMPUTER: IBM PC compatible
(C) OPERATING SYSTEM: PC-DOS/MS-DOS
(D) SOFTWARE: PatentIn Release #1.0, Version #1.30
- (vi) CURRENT APPLICATION DATA:
(A) APPLICATION NUMBER: US 09/560,494
(B) FILING DATE: 28-APR-2000
(C) CLASSIFICATION:
- (vii) PRIOR APPLICATION DATA:
(A) APPLICATION NUMBER: WO PCT/GB98/03235
(B) FILING DATE: 28-OCT-1998
- (vii) PRIOR APPLICATION DATA:
(A) APPLICATION NUMBER: GB 9722779.7
(B) FILING DATE: 28-OCT-1997
- (viii) ATTORNEY/AGENT INFORMATION:
(A) NAME: Baker, Hollie L.
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(C) REFERENCE/DOCKET NUMBER: 102286.413
- (ix) TELECOMMUNICATION INFORMATION:
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(2) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 48 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

- (A) DESCRIPTION: /desc = "Synthetic DNA primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

Ant GACTGAGTCG CGGCCGCTGC CACCATGGCC TTACCAGTGA CCGCCTTG

48

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 42 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

- (A) DESCRIPTION: /desc = "Synthetic DNA primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

TATTCGACTG GATCCTTATA CGTATCTCGC CGAAAGGCTG GG

42

(2) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 42 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

- (A) DESCRIPTION: /desc = "Synthetic DNA primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

GGAATTCCAT ATGAGCCAGT TCCGGGTGTC GCCGCTGGAT CG

42

(2) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 54 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

- (A) DESCRIPTION: /desc = "Synthetic DNA primer"

Al Cont
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

CGCGGATCCC TATGCGCCCC CCGCTGGCCG GCTCGCCTCT GGGCGCAGGG ACAG

54

(2) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 60 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

- (A) DESCRIPTION: /desc = "Synthetic DNA primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

CACCGCGAAT TCGGATCCTA AGCGGGTCTA CAAGCTTCGG GCTTCGCTGG CAGGAAGACC

60

(2) INFORMATION FOR SEQ ID NO: 6:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 59 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

- (A) DESCRIPTION: /desc = "Synthetic DNA primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

CACCGCGAAT TCGGATCCTA AGCGGGTCTA CAAGCTTCTG GCGTCGTGGT GGGCTTCGC

59

(2) INFORMATION FOR SEQ ID NO: 7:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 60 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "Synthetic DNA primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

CACCGCGAAT TCGGATCCTA AGCGGGTCTA CAAGCTTCGG GCTTCGCTGG CAGGAAGACC

60

(2) INFORMATION FOR SEQ ID NO: 8:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 42 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "Synthetic DNA primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

GTGGCAAGCT TGGATCCTAT GCGTCGTGG TGGGCTTCGC TG

42

(2) INFORMATION FOR SEQ ID NO: 9:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 42 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "Synthetic DNA primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

GGAATTCCAT ATGAGTCAAT TTCGTGTATC ACCGCTGGAT CG

42

(2) INFORMATION FOR SEQ ID NO: 10:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "Synthetic DNA primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

ACATACCCAT GGGCTCTCAC TCCATGAGGT ATTTC

35

(2) INFORMATION FOR SEQ ID NO: 11:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 43 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "Synthetic DNA primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

ACATACAAGC TTACGGCTCC CATCTTAAGG TGAGGGGCTT GGG

43

(2) INFORMATION FOR SEQ ID NO: 12:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

Ile Leu Lys Glu Pro Val His Gly Val
1 5

(2) INFORMATION FOR SEQ ID NO: 13:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: linear

Cont
(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

Ser Leu Tyr Asn Thr Val Ala Thr Leu
1 5

(2) INFORMATION FOR SEQ ID NO: 14:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

Val Ile Tyr Gln Tyr Met Asp Asp Leu
1 5

(2) INFORMATION FOR SEQ ID NO: 15:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 42 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "Synthetic DNA primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

CTGTCCAACC CGACGTCGGG CAGCTCGTGG CTCTTCCAGC CG

42

(2) INFORMATION FOR SEQ ID NO: 16:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 42 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "Synthetic DNA primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

CGGCTGGAAG AGCCACGAGC TGCCCGACGT CGGGTTGGAC AG

42

(2) INFORMATION FOR SEQ ID NO: 17:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 99 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "Synthetic DNA primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

GGGGGAAGCT TAATGCCATT CGATTTTCTG AGCTTCAAAA ATATCGTTCA GACCACCACC

60

GGATCCTGGC GTCGTGGTGG GCTTCGCTGG CAGGAAGAC

99

(2) INFORMATION FOR SEQ ID NO: 18:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid

(C) STRANDEDNESS:
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

Gly Ser Gly Gly Gly Leu Asn Asp Ile Phe Glu Ala Gln Lys Ile Glu
1 5 10 15

Trp His

Al
Cont
(2) INFORMATION FOR SEQ ID NO: 19:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 63 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid
(A) DESCRIPTION: /desc = "Synthetic DNA prmer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

GAGGAGGAGC ATATGAAACC ACAAGCACCT GAACTACGAA TCTTTCCAAA GAAAATGGAC 60
GCC 63

(2) INFORMATION FOR SEQ ID NO: 20:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid
(A) DESCRIPTION: /desc = "Synthetic DNA primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

GGGGAGGGAA GCTTACTTGG TAGTAGTAGA GTTCAC

36

(2) INFORMATION FOR SEQ ID NO: 21:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS:
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

Q1
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

Gly Ile Leu Gly Phe Val Phe Thr Leu
1 5

(2) INFORMATION FOR SEQ ID NO: 22:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS:
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

Lys Ala Val Tyr Asn Phe Ala Thr Cys
1 5

(2) INFORMATION FOR SEQ ID NO: 23:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 366 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "A synthetic DNA construct encoding part of the extracellular domain of human CD8alpha"

(ix) FEATURE:

(A) NAME/KEY: CDS
(B) LOCATION:1..366

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

ATG AGT CAA TTT CGT GTA TCA CCG CTG GAT CGG ACC TGG AAC CTG GGC 48
Met Ser Gln Phe Arg Val Ser Pro Leu Asp Arg Thr Trp Asn Leu Gly
1 5 10 15

GAG ACA GTG GAG CTG AAG TGC CAG GTG CTG CTG TCC AAC CCG ACG TCG 96
Glu Thr Val Glu Leu Lys Cys Gln Val Leu Leu Ser Asn Pro Thr Ser
20 25 30

GGC TGC TCG TGG CTC TTC CAG CCG CGC GGC GCC GCC GCC AGT CCC ACC 144
Gly Cys Ser Trp Leu Phe Gln Pro Arg Gly Ala Ala Ala Ser Pro Thr
35 40 45

TTC CTC CTA TAC CTC TCC CAA AAC AAG CCC AAG GCG GCC GAG GGG CTG 192
Phe Leu Leu Tyr Leu Ser Gln Asn Lys Pro Lys Ala Ala Glu Gly Leu
50 55 60

GAC ACC CAG CGG TTC TCG GGC AAG AGG TTG GGG GAC ACC TTC GTC CTC 240
Asp Thr Gln Arg Phe Ser Gly Lys Arg Leu Gly Asp Thr Phe Val Leu
65 70 75 80

ACC CTG AGC GAC TTC CGC CGA GAG AAC GAG GGC TAC TAT TTC TGC TCG 288
Thr Leu Ser Asp Phe Arg Arg Glu Asn Glu Gly Tyr Tyr Phe Cys Ser
85 90 95

GCC CTG AGC AAC TCC ATC ATG TAC TTC AGC CAC TTC GTG CCG GTC TTC 336
Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His Phe Val Pro Val Phe
100 105 110

CTG CCA GCG AAG CCC ACC ACG ACG CCA TAG 366
Leu Pro Ala Lys Pro Thr Thr Thr Pro *
115 120

(2) INFORMATION FOR SEQ ID NO: 24:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 122 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

Met Ser Gln Phe Arg Val Ser Pro Leu Asp Arg Thr Trp Asn Leu Gly
1 5 10 15

Glu Thr Val Glu Leu Lys Cys Gln Val Leu Leu Ser Asn Pro Thr Ser
 20 25 30
 Gly Cys Ser Trp Leu Phe Gln Pro Arg Gly Ala Ala Ala Ser Pro Thr
 35 40 45
 Phe Leu Leu Tyr Leu Ser Gln Asn Lys Pro Lys Ala Ala Glu Gly Leu
 50 55 60
 Asp Thr Gln Arg Phe Ser Gly Lys Arg Leu Gly Asp Thr Phe Val Leu
 65 70 75 80
 Thr Leu Ser Asp Phe Arg Arg Glu Asn Glu Gly Tyr Tyr Phe Cys Ser
 85 90 95
 Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His Phe Val Pro Val Phe
 100 105 110
 Leu Pro Ala Lys Pro Thr Thr Thr Pro *
 115 120

(2) INFORMATION FOR SEQ ID NO: 25:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "A synthetic DNA construct encoding part of the extracellular domain of murine CD8alpha"

(ix) FEATURE:

- (A) NAME/KEY: CDS
- (B) LOCATION: 4..396

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:

CAT ATG AAA CCA CAA GCA CCT GAA CTA CGA ATC TTT CCA AAG AAA ATG	48
Met Lys Pro Gln Ala Pro Glu Leu Arg Ile Phe Pro Lys Lys Met	
125 130 135	
GAC GCC GAA CTT GGT CAG AAG GTG GAC CTG GTA TGT GAA GTG TTG GGG	96
Asp Ala Glu Leu Gly Gln Lys Val Asp Leu Val Cys Glu Val Leu Gly	
140 145 150	
TCC GTT TCG CAA GGA TGC TCT TGG CTC TTC CAG AAC TCC AGC TCC AAA	144
Ser Val Ser Gln Gly Cys Ser Trp Leu Phe Gln Asn Ser Ser Ser Lys	
155 160 165	

CTC CCC CAG CCC ACC TTC GTT GTC TAT ATG GCT TCA TCC CAC AAC AAG 192
 Leu Pro Gln Pro Thr Phe Val Val Tyr Met Ala Ser Ser His Asn Lys
 170 175 180 185

ATA ACG TGG GAC GAG AAG CTG AAT TCG TCG AAA CTG TTT TCT GCC ATG 240
 Ile Thr Trp Asp Glu Lys Leu Asn Ser Ser Lys Leu Phe Ser Ala Met
 190 195 200

AGG GAC ACG AAT AAT AAG TAC GTT CTC ACC CTG AAC AAG TTC AGC AAG 288
 Arg Asp Thr Asn Asn Lys Tyr Val Leu Thr Leu Asn Lys Phe Ser Lys
 205 210 215

GAA AAC GAA GGC TAC TAT TTC TGC TCA GTC ATC AGC AAC TCG GTG ATG 336
 Glu Asn Glu Gly Tyr Tyr Phe Cys Ser Val Ile Ser Asn Ser Val Met
 220 225 230

TAC TTC AGT TCT GTC GTG CCA GTC CTT CAG AAA GTG AAC TCT ACT ACT 384
 Tyr Phe Ser Ser Val Val Pro Val Leu Gln Lys Val Asn Ser Thr Thr
 235 240 245

ACC AAG CCA TAA GCTT 400
 Thr Lys Pro *
 250

(2) INFORMATION FOR SEQ ID NO: 26:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 131 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

Met Lys Pro Gln Ala Pro Glu Leu Arg Ile Phe Pro Lys Lys Met Asp
 1 5 10 15

Ala Glu Leu Gly Gln Lys Val Asp Leu Val Cys Glu Val Leu Gly Ser
 20 25 30

Val Ser Gln Gly Cys Ser Trp Leu Phe Gln Asn Ser Ser Ser Lys Leu
 35 40 45

Pro Gln Pro Thr Phe Val Val Tyr Met Ala Ser Ser His Asn Lys Ile
 50 55 60

Thr Trp Asp Glu Lys Leu Asn Ser Ser Lys Leu Phe Ser Ala Met Arg
 65 70 75 80

Asp Thr Asn Asn Lys Tyr Val Leu Thr Leu Asn Lys Phe Ser Lys Glu
 85 90 95

Asn Glu Gly Tyr Tyr Phe Cys Ser Val Ile Ser Asn Ser Val Met Tyr
100 105 110

Phe Ser Ser Val Val Pro Val Leu Gln Lys Val Asn Ser Thr Thr Thr
115 120 125

Lys Pro *
130